NRPM 107: Rescue and Operations Syllabus

[Semester and year]

Instructor information

Instructor	Email Address	Office hours
Paula Johnson	Paula.johnson@princetonrescue.com	Vary

General information

Description

This course develops the learner's knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

Expectations and goals

Upon Successful completion of this course, students will be able to:

- Identify current local and state standards that influence ambulance design, equipment requirements, and staffing of ambulances.
- Describe the advantages and disadvantages of air medical transport.
- Explain the need for the Incident Management System (IMS)/Incident Command System (ICS) in managing emergency medical services (EMS) incidents.
- Describe the functional components (Command, Finance/Administration, Logistics, Operations, and Planning/Intelligence) of the Incident Management System.
- Define the term rescue and explain the medical and mechanical aspects of rescue operations.
- Describe the phases of a rescue operation and the role of the paramedic at each phase.
- Explain the role of the paramedic/EMS responder at the hazardous material incident.
- Explain acute and delayed toxicity, local versus systemic effects, dose response, and synergistic effects.
- Explain emergency evasive techniques for potentially violent situations.
- Describe police evidence considerations and techniques to assist in evidence preservation.
- Identify situations and conditions unique to rural EMS.
- Identify the assessment and management concerns for victims of conventional, nuclear, biological, and chemical weapons.

Course Delivery Method: Hybrid

Course materials

Required materials

Computer with Internet capabilities to access:

- https://CourseSites.com

Optional materials

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Required text

- Nancy Caroline's Emergency Care in the Streets; 8th edition, 2013 by Elling and Smith; Publisher Jones and Bartlett. ISBN: 978-1-284-13718-7

Course schedule *(*Weeks correspond to semester schedule)*

Week	Topic	Pre-Class Assignment	Class Session	Reflective Assignment ***(DUE: Friday after class session)***
10	Vehicle Extrication	Video Lecture: Auto Extrication	Lecture: Guest Speaker – Equipment in practice (Extrication for EMS)	• Quiz: extrication
11	• Ground Ambulance Ops • ICS • MCI • HazMat Awareness • WMD • Aeromedical	• Video Lecture: Ambulance Ops • Video Lecture: Crime Scene Awareness • Video Lecture: ICS • NIMS 100 • Video Lecture: Using the ERG • Video Lecture: Final notes for HazMat Response • Video Lecture: WMD • Video Lecture: Transportation and SSM	• Group Project – SSM • Tabletop MCI with HazMat/ICS • WMD Drug Cards	• Quiz: Ground Ops • Quiz: ICS/MCI • Case Study: Organophosphate exposure • Quiz: Using the ERG
12	Rescue Awareness/Disaster Response	• Video Lecture: Water Rescue • Video Lecture: Confined Space	• Water Safety in Practice (patient packaging) • Guest Speaker – Victim Location in practice	• Quiz: Rescue Awareness
		•	•	**SUMMATIVE WRITTEN EXAM**

NOTE:

**NRPM 107 contains vehicle extrication which will require students to attend a 2.5 class session totalling. Additional Rescue/Ops classes will include extensive field trips/lab sessions that will require additional drive time, etc.

Procedures for Evaluation

A. *Students must complete each NRPM course with a grade point average of at least 70%. Any student who does not have a 70% average at the completion of an NRPM course will not be allowed to continue in the program. The student's academic standing will be discussed with the student periodically throughout the program.

B. If a student scores below a 70% on a NRPM Cumulative examination, the student will be required to retake the examination until a score of 70% is attained; however, the original score will stand as the recorded score.

C. Individual skills that comprise a skill lab are mandatory per the National Registry of EMT's. A student must complete each skill with the minimum points required AND the established number of SUCCESSFUL attempts meeting those minimum point standards. A grade will be issued to the student based on their participation in lab sessions and their reporting in platinum planner.

***NOTE:** NRPM 202 is the exception to this policy. In this course, you must successfully complete each sub-specialty based on the criteria from each governing agency. The final grade issued for this course will be a "pass/fail." If the student is unable to receive a passing grade for this class, the student will NOT be allowed to continue in the Paramedic Program.

Grading Components and Weights:

The Paramedic Program Student's Classroom Assessment grade will be the sum of the weighted scores comprising the parameters of course work outlined below.

Didactic Courses
80% Coursework (tests, homework, etc.) Homework/Special Projects – 5% Quizzes – 5% Case Studies/Objectives – 20% Exams – 50%
20% Monthly Behavioral Evaluations

Grading Scale:

100-90 = A 89-80 = B 79-70 = C 69-60 = D <59 = F

All students must maintain a C average in each course to continue throughout the program

Attendance Policy

All material is important to your success; therefore, students absent more than 5% of the course without a valid excuse will be dismissed from the program of study.

There are two types of absences recognized as a "valid excuse" by Princeton Rescue Squad's Education Department: (1) absence resulting from participation in an activity where you are officially representing the Education Department; and (2) absence caused by unforeseeable and unavoidable circumstance which is beyond your control. All other absences

are considered willful and will not count as excused. It is your responsibility to provide your instructor with a proper explanation and documentation of these valid absences. It is the responsibility of the student to make up any work or testing missed. The missed (comparable) coursework and exams must be completed within 72 hours of the absence and prior to the last date of the class.

Online Video course Lectures associated with "Hybrid" classes are required to be completed by 10am on the morning of the deadline listed. These deadlines are typically due weekly and attendance will be taken based on your submission of these Lectures. If you fail to submit the Lecture when due, you will be marked absent for that week's hybrid class.

Tardiness will not be tolerated. Any student who shows up later than 15 minutes into the beginning of a course or leaving a class session 30 minutes or more before the end of the class day will result in the mark of tardy on his/her record. An accumulation of 5 tardies will result in an unexcused absence.

Students may withdraw from the course at any time. Any student that misses more than two (2) consecutive class sessions without contacting the course instructor will be considered to have withdrawn from the course.

Student Advisory and Evaluation

Faculty will routinely discuss student progress throughout the program of study at regular intervals (increments no longer than 25% of the program) to provide learners with adequate chances to take corrective actions. During these mandatory meetings with a student item(s) or subject(s) of concern to discuss may include, but are not limited to:

Excessive absences and tardiness, failure to turn in assignments / clinical rotations on time, classroom / clinical behavior concerns, plagiarism, cheating, struggling or failure to maintain a GPA of 70%, etc.

A Student Advisory Form will be filled out and signed by both the Faculty member addressing the concern, and the student. Once the concern has been documented, the Program Instructor and student will discuss possible resolutions to the problem and a proposed action plan will be written on the Advisory Form. The student may use the Advisory Form to record a rebuttal against the initial concern or proposed action plan. The instructor will then mark the form "unresolved" and forward it to the Education Director who investigate the matter and make a determination on a second Advisory Form. Copies of these completed Advisory Forms are available to the student; however, originals must and will be retained by the Education Program.

Standards of Conduct Regarding Cell Phone Use

As adults, you are permitted to retain your cellular devices unless during testing. At that time, all cell phones must be placed in a bag away from your testing area or given to your instructor until the testing is complete. It is common during lecture for students to utilize their cell phones to look up information regarding topics discussed in the class session, and this practice is permitted. However, if the instructor or other member of the instructional or administrative staff see that cell phones are being used for other purposes (ie: facebook, messenger, etc.) during lecture, lab, or any other designated course activity then the following discipline policy will take place:

- First offense – verbal warning
- Second offense – written warning

- Third offense – dismissal from the program

Academic Dishonesty

As a student and pre-hospital professional, you are expected to adhere to a professional code of conduct and not engage in plagiarism, cheating, falsifying information or records, or any other such activity. Failure to adhere to this code of conduct will result in disciplinary action up to and including dismissal from the program.

Grounds For Dismissal

A student may be dismissed from the program for the following reasons:

1. Absenteeism greater than 1 unexcused class.
2. Receiving a "D" or "F" as a cumulative grade for the course.
3. Insubordination (in class, lab, or in clinical)
4. The conviction and/or known use of, distribution of, or possession of illegal drugs, or controlled substances.
5. Failure to accomplish clinical assignments and objectives
6. Unprofessional or unethical conduct
7. Cheating in related or professional EMS courses or in clinical documentation.

NRPM 107 Course Objectives:

1. Summarize the medical equipment, safety equipment, and operations equipment carried on an ambulance.
2. Discuss the importance of performing regular vehicle inspections, and list the specific parts of an ambulance that should be inspected daily.
3. Provide examples of some high-risk situations and hazards that may affect the safety of the ambulance and its passengers during both pretransport and transport.
4. Discuss specific considerations that are required for ensuring scene safety, including personal safety, patient safety, and traffic control.
5. Define the terms cleaning, disinfection, high-level disinfection, and sterilization, and explain how they differ.
6. Identify the dangers to consider when operating an ambulance in the emergency mode.
7. Discuss the guidelines for driving an ambulance safely and defensively, and identify key steps EMS personnel can take to improve safety while en route to the scene, the hospital, and the station.
8. Describe the elements that dictate the use of lights and siren to the scene and to the hospital and the factors required to perform a risk-benefit analysis regarding their use.
9. Give examples of the specific, limited privileges that are provided to emergency vehicle drivers by most state laws and regulations.
10. Explain why using police escorts and crossing intersections pose additional risks to EMS personnel during transport, and discuss special considerations related to each.
11. Describe the capabilities, protocols, and methods for accessing air medical transport.
12. List the safety concerns when operating a landing zone for helicopter transport.
13. Describe key scene safety considerations when preparing for a helicopter medevac, including establishing a landing zone, securing loose objects, mitigating onsite hazards, and approaching the aircraft.

Affective-

1. Assess personal practices relative to ambulance operations which may affect the safety of the crew, the patient and bystanders.

2. Serve as a role model for others relative to the operation of ambulances.
3. Value the need to serve as the patient advocate to ensure appropriate patient transportation via ground or air.

Objectives

1. Explain the federal requirements for the minimum entry-level certifications of paramedics and other emergency personnel in incident command system training.
2. Describe the National Incident Management System (NIMS) and its major components. (
3. Describe the purpose of the incident command system (ICS) and its organizational structure, and explain the role of EMS response within it.
4. Describe how the ICS assists the EMS in ensuring both personal safety and the safety of bystanders, health care professionals, and patients during an emergency.
5. Describe the role of the paramedic in establishing command under the ICS.
6. Explain the purpose of medical incident command within the incident management system, and describe its organizational structure within ICS.
7. Describe the specific conditions that would define a situation as a multiple-casualty incident (MCI), and give some examples.
8. Describe what occurs during primary and secondary triage, how the four triage categories are assigned to patients on the scene, and how destination decisions regarding triaged patients are made.
9. Describe how the START and JumpSTART triage methods are performed.
10. Explain the need for retriaging of patients during multiple-casualty incidents.
11. Describe the purpose of critical incident stress management.

Objectives

12. Demonstrate how to perform triage based on a fictitious scenario that involves a multiple-casualty incident.
14. Explain the three levels of training in technical rescue.

1. Discuss guidelines for assisting special rescue teams.
2. Discuss the steps of special rescue, including preparation, response, arrival and scene size-up, stabilization of the scene, access, disentanglement, removal, and transport of the patient.
3. Discuss specific hazards that may be encountered and identified during the arrival and scene size-up of a technical rescue incident.
4. Explain the importance of the incident management system during technical rescue incidents.
5. Discuss how to ensure safety at the scene of a rescue incident, including scene size-up and the selection of the proper personal protective equipment and additional necessary gear.
6. Provide examples of vehicle components that may be hazardous to responders and patients following a crash, and explain how to mitigate their dangers.
7. Discuss how to ensure situational safety at the site of a vehicle extrication, including controlling traffic flow, performing a 360° assessment, stabilizing the vehicle, dealing with unique hazards, and evaluating the need for additional resources.
8. Explain the simple methods used to access the patient during an incident that requires extrication.
9. Discuss disentanglement methods and considerations, including air bag safety, displacing the seat, removing the windshield, removing the roof, and displacing the dash.
10. Give examples of situations that would require special technical rescue teams, and describe the paramedics' role in these situations.

Objectives

1. Define the term hazardous material.
2. Describe the OSHA HAZWOPER regulation and recognize the entry-level training or experience requirements identified by the HAZWOPER regulation for a paramedic to respond to a hazardous materials incident.
3. Describe the hazard classification system used by the National Fire Protection Association (NFPA).
4. Explain the role of the paramedic during a hazardous materials incident both before and after the hazardous materials team arrives, including precautions required to ensure the safety of civilians and public service personnel.
5. Discuss the specific types of information and reference resources a paramedic can use to recognize a hazardous materials incident.
6. Describe some of the containers and vehicles used to transport hazardous materials on the roadway.
7. Explain how the three control zones are established at a hazardous materials incident, and discuss the characteristics of each zone, including the personnel who work within each one.
8. Describe the four levels of personal protective equipment (PPE) that may be required at a hazardous materials incident to protect personnel from injury by or contamination from a particular substance.
9. Describe how the route of the exposure, the dose and concentration of the hazard, and the length of time the hazard is in contact with the body affects the body.
10. Provide examples of how understanding the chemical and physical properties of a substance may give you some valuable insight when it comes to providing care.
11. Describe decontamination techniques, including emergency decontamination, mass decontamination, and technical decontamination.
12. Describe patient care at a hazardous materials incident and explain special requirements for specific exposures.

Objectives

1. Identify DOT labels, placards, and markings that are used to designate hazardous materials.
2. Demonstrate the ability to use a variety of reference materials to identify a hazardous material.
3. List key questions to consider when responding to a terrorist event.
4. Define international and domestic terrorism.
5. Define and specify types of terrorist groups.
6. List various examples of terrorist agendas.
7. Discuss the color-coded advisory system’s replacement with the National Terrorism Advisory System (NTAS).
8. Discuss what actions paramedics should take during the course of their work to heighten their ability to respond to and survive a terrorist attack.
9. List various examples of potential terrorist targets.
10. Discuss factors to consider when responding to a potential weapon of mass destruction incident, including preincident indicators, the type of location, the type of call, the number of patients, and victims’ statements.
11. Discuss key response actions to take at the scene of a terrorist event, including establishing scene safety, ensuring personal protection, notification procedures, requests for resources, and establishing or working within command.
12. Define secondary device, and discuss the importance of continually reassessing scene safety.

13. List the four main categories of weapons of mass destruction.
14. Discuss specific types of devices used by terrorists, including explosives, ammonium nitrate, and suicide bombers.
15. Define terms related to chemical agents, including persistency, volatility, contact hazard, and vapor hazard.
16. Describe specific vesicant agents.
17. Discuss signs, symptoms, and treatment for vesicant exposure.
18. Describe specific pulmonary agents.
19. Discuss signs, symptoms, and treatment for exposure to a pulmonary agent.
20. Describe specific nerve agents.
21. Discuss signs, symptoms, and treatment for exposure to a nerve agent.
22. Describe specific industrial chemicals and insecticides.
23. Discuss signs, symptoms, and treatment for exposure to a cyanide agent.
24. Define terms related to biologic agents, including dissemination, disease vector, communicability, and incubation.
25. Describe signs, symptoms, and treatment for smallpox.
26. Describe signs, symptoms, and treatment for viral hemorrhagic fevers.
27. Describe signs, symptoms, and treatment for inhalation and cutaneous anthrax.
28. Describe signs, symptoms, and treatment for plague.
29. Describe signs, symptoms, and treatment for exposure to botulinum toxin.
30. Describe signs, symptoms, and treatment for exposure to ricin.
31. Define syndromic surveillance, and discuss its importance during a potential terrorist event.
32. Define radiation, and describe the difference between alpha, beta, gamma, and neutron radiation.
33. Describe what a radiologic dispersal device, or dirty bomb, is and how it is used for terrorism.
34. List protective measures to take when responding to a radiologic event.
35. Discuss medical management of a patient who was potentially exposed to radiation.

Objectives

1. Define disaster, including the types of critical infrastructure that can be affected by a disaster.
2. Explain what is meant by an all-hazards approach to disaster planning.
3. List items to consider when preplanning for a disaster of any sort.
4. Discuss preplanning questions to consider related to general items, such as geography, the infrastructure, and the population.
5. Discuss preplanning considerations related to available EMS resources, such as mutual aid, fire, police, and hospitals.
6. Discuss other resources that should be considered when preplanning for a disaster event, such as nongovernmental organizations, disaster relief agencies, and local businesses.
7. Discuss other preplanning considerations for disaster planning, including communications, supplies, training, transportation, and media and legal concerns.
8. List items to consider when responding to a disaster emergency.
9. Describe early measures to take when responding to a disaster, including early preparation when a warning is received, inventory of supplies, mobilization of personnel, and command setup.

10. Discuss other general considerations for responding to a disaster, including personnel physical and mental needs, resupplying, surveillance, and media.
11. List items to consider after responding to a disaster.
12. Discuss actions to take after responding to a disaster, including the after-action report, retraining, and reimbursement.
13. Discuss concerns related to specific natural disasters, including natural fires, snow and ice storms, tornados, hurricanes, tsunamis, earthquakes, landslides, cave-ins, volcanic eruptions, flooding, sandstorms, prolonged cold weather, drought, heat wave, meteors, and pandemics.
14. Discuss concerns related to specific man-made disasters, including structural fires, construction failures, power failures, riots and stampedes, strikes, snipers and hostage situations, explosions, and technology disruptions.

Affective-

1. Understand the rationale for initiating incident command even at a small MCI event.

2. Explain the rationale for having efficient and effective communications as part of an incident command/ management system.

3. Explain why common problems of an MCI can have an adverse effect on an entire incident.

4. Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system.

1. Understand the significance of potential violence that can occur on an EMS call, including specific settings in which violence is more likely to occur.
2. Discuss practical measures that can be taken to reduce the likelihood of a paramedic becoming a victim on the scene, including uniform style and body armor.
3. Describe factors to assess during scene size-up that can help determine whether the scene is safe, including specific indicators of violence.
4. Discuss the role of standard operating procedures at a potentially violent incident.
5. Describe how to park and position your emergency vehicle when responding to a call involving another motor vehicle.
6. Describe the safest way to approach a passenger-style motor vehicle.
7. Describe the safest way to approach a van.
8. Describe how to retreat from danger.
9. Describe how to approach a residence safely.
10. Discuss types of exits, including primary exit and secondary exit.
11. List items that can potentially be used as a weapon.
12. Discuss techniques to use when responding to a call involving potential domestic violence.
13. Discuss concerns related to clandestine drug laboratories.
14. Discuss concerns related to gang territories and measures that the paramedic can take to work safely in these areas.
15. Discuss procedures the paramedic should follow at mass shootings and at scenes involving active shooters or snipers.
16. Define cover and concealment, and provide examples of each.
17. Describe measures the paramedic can take to increase his or her safety in a hostage situation.
18. Discuss the role self-defense can play in the practice of paramedicine.
19. Discuss measures the paramedic can take to preserve evidence at a crime scene, while still providing optimal patient care.

Overview of Semester 3 Class Schedule:

	NRPM 200	NRPM 107	NPRM 202		Total hrs				
WEEK #									
1			9		9	PEPP			
2			9		9	PEPP			
3			9		9	PALS			
4			9		9	PALS			
5			9		9	ACLS			
6			9		9	ACLS			
7			9		9	PHTLS			
8			9		9	PHTLS			
9			8		8	GEMS			
10		20			20	Vehicle extrication over 2.5 days = 20			
11		10			10	MCI/WMD with lab			
12		10			10	Specialty rescue with lab			
13	3				3				
14	9				9				
15	9				9				
16	9				9				
	30	40	80		150				

Course Legend:		**Classes will meet on Tuesdays with special session time TBA**	
	Req. Hrs:	**Start Time**	**End Time**
NRPM 200: Simulation Lab 2	30	900	1830
*NRPM 201: Clinical Practicum 2	205	Based on student avail.	
**NRPM 107: Rescue and Operations	40	900	1900
NRPM 202: Special Topics in Pre-Hospital Care	80	900	1830
	355		

*NRPM 201 students will complete 14hrs/week of clinical internship

**NRPM 107 contains vehicle extrication which will require students to attend a 2.5 class session totalling. Additional Rescue/Ops classes will include extensive field trips/lab sessions that will require additional drive time, etc.